

**REMARKS**

Claims 66, 67, 103, 104, 125 and 126 have been amended. Claims 37-44, 60, 62-72, 88-117, 119-128 and 130-131 and are pending. Applicants respectfully request reconsideration in view of the foregoing amendments and following remarks.

An Information Disclosure Statement will be forthcoming containing a listing of references from the specification.

Applicants note with appreciation Examiner's acknowledgement that the previously pending claims 66, 67, 103, 104, 125 and 126 contain allowable subject matter if rewritten in independent form. Claims 66, 103 and 125 have been rewritten in independent format to include the features identified as allowable in the Office Action. Claims 67, 104 and 126 now depend directly or indirectly from amended claims 66, 103 and 125. Accordingly, claims 66, 67, 103, 104, 125 and 126 are now in condition for allowance.

Claims 37-40, 43, 44, 60, 62-65, 70-72, 88-91, 94, 95, 98-102, 107, 108, 111-115, 119-124, 130 and 131 stand rejected under 35 U.S.C. §102(b) as being anticipated by Stupian (U.S. Patent No. 5,543,364). Stupian relates to a package having a hydrogen out venting window. The window is a hydrogen catalytic and hydrogen permeable window formed on or in the wall of the package.

Independent claims 37 and 88 recite, *inter alia*, "a thin layer deposited over at least part of said semiconductor chip comprising a source of releasable hydrogen within said enclosure."

Stupian does not teach the limitations of claim 37 or claim 88. Claims 37 and 88 recite "a thin layer deposited over at least part of said semiconductor chip comprising a source of releasable hydrogen within said enclosure." The purpose of the window of Stupian is to vent hydrogen out to the ambient air or outer space and therefore the window is located on the wall of the package. In contrast, the source of releasable

hydrogen of claims 37 and 88 is “deposited over at least part of said semiconductor chip,” not on the wall of the package. The placement of the window of Stupian versus the placement of the source of releasable hydrogen of claims 37 and 88 belies the opposing purposes and functionalities of Stupian versus the present Application. Stupian does not disclose the limitations of claim 37 or claim 88 and therefore, Applicants respectfully request the rejection of claims 37 and 88 be withdrawn. Claims 38-40, 43 and 44 depend from claim 37 and include additional limitations. Claims 89-91, 94, 95, and 98 depend from claim 88 and include additional limitations. For at least the reasons discussed above in relation to claims 37 and 88, the rejections of claims 38-40, 43-44, 89-91, 94, 95, and 98 should also be withdrawn.

Independent claims 62, 99 and 121 recite, *inter alia*, “a heat-activated source of releasable hydrogen within said enclosure.” As discussed above, Stupian relates to a device for removing hydrogen from a package employing a hydrogen catalytic and hydrogen permeable window formed in or on the wall of the package. Contrary to the Office Action at page 5, reference number 16a of Stupian is not “a heat-activated source of releasable hydrogen,” as recited in claims 62, 99 and 121. Reference number 16 relates to a bonding material that “may evolve molecular hydrogen into the internal cavity of the package,” along with the package portions 10, 12 and circuit 14. (col. 4, lines 62-65) Nowhere does Stupian disclose that the bonding material is a “heat-activated source of releasable hydrogen.” Further, Stupian does not teach “wherein said second gas component results from the release of said releasable hydrogen upon application of heat,” as recited in claim 62. Stupian relates to molecular hydrogen that may be released upon degradation of the components of a package and provides a window to out vent these hydrogen products. Stupian does not disclose all of the limitations of claims 62, 99 or 121 and therefore, Applicants respectfully request the rejections be withdrawn. Claims 63-65, 70-72, 100-102, 107, 108, 111, 122-124, 130 and 131 depend from claims 62, 99 or 121, respectively, and include additional limitations. For at least the reasons discussed above in relation to claims 62, 99 or 121, the rejections of claims 63-65, 70-72, 100-102, 107, 108, 111, 122-124, 130 and 131 should also be withdrawn.

Claim 112 recites, *inter alia*, “said source of releasable hydrogen capable of releasing hydrogen for pressurizing the space within said enclosure to a pressure above the first pressure.” As discussed above, Stupian relates to out-venting hydrogen through a window. Stupian does not teach the limitations of claim 112. Claims 113-115 and 119-120 depend from claim 112 and include additional limitations and should therefore also be allowable for at least the reasons discussed above. Accordingly, Applicants respectfully request the rejections of claims 112-115 and 119-120 be withdrawn.

Claims 41, 42, 68, 69, 92, 93, 96, 97, 105, 106, 109, 110, 116, 117, 127 and 128 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Stupian in view of Babcock (U.S. Patent No.3,766,634).

Claims 41, 42, 68, 69, 92, 93, 96, 97, 105, 106, 109, 110, 116, 117, 127 and 128 depend from claims 37, 62, 88, 99, 112 or 121, respectively. For at least the reasons stated above in relation to claims 37, 62, 88, 99, 112 or 121, the dependent claims should be allowable. As discussed above with respect to independent claims 37, 62, 88, 99, 112 or 121, Stupian does not provide all of the limitations of independent claims 37, 62, 88, 99, 112 or 121. In addition, the dependent claims are allowable on their own merits, because not only does Stupian fail to teach the limitations of independent claims 37, 62, 88, 99, 112 or 121, but even if taken in combination with Babcock, fails to meet the limitations of the dependent claims. Stupian relates to a window for outventing molecular hydrogen. Babcock relates to methods for bonding non-metallic members to other non-metallic or metallic members (col. 1, lines 11-22 and Office Action at 9). The purpose of Stupian is to outvent molecular hydrogen through a window, not to satisfactorily wet a non-metallic and metallic member, as asserted in the Office Action. There is no motivation to combine these disparate references. Stupian or Babcock, taken alone or in combination, do not teach or suggest the limitations of claims 37, 62, 88, 99, 112 or 121. Since there is no motivation to combine these references, it would not have been obvious to apply the teachings of Stupian to Babcock to arrive at the present invention. Accordingly, Applicants

respectfully request the rejections of claims 41, 42, 68, 69, 92, 93, 96, 97, 105, 106, 109, 110, 116, 117, 127 and 128 be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Dated: May 10, 2004

Respectfully submitted,

By 

Thomas J. D'Amico

Registration No.: 28,371

DICKSTEIN SHAPIRO MORIN &  
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant

Registration No.: 37,131